

Aqueous polymer dispersions based on copolymers of vinylaromatics and butadiene, their preparation and their use as sizes for paper

5 Abstract

Aqueous polymer dispersions which are obtainable by free radical copolymerization of

- 10 (a) from 0.1 to 99.9% by weight of styrene and/or methylstyrene,  
 (b) 0.1-99.9% by weight of 1,3-butadiene and/or isoprene and  
 (c) from 0 to 40% by weight of other ethylenically unsaturated  
 copolymerizable monomers, the sum of the monomers (a), (b)  
 and (c) always being 100,

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in the presence of from 10 to 40% by weight, based on the  
 monomers used, of at least one degraded starch having a molecular  
 weight  $M_n$  of from 500 to 40 000 and of water-soluble redox  
 catalysts are prepared by free radical copolymerization of the

- 20 monomers (a), (b) and, if required, (c) in an aqueous medium in  
 the presence of a degraded starch having a molecular weight  $M_n$  of  
 from 500 to 10 000 and redox initiators and are used as engine  
 sizes and surface sizes for paper.

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